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CLINICS.

CLINICAL LECTURES.

Two Lectures on the Laryngoscope. Delivered at the Royal College of Physicians. By George Johnson, M. D., Prof. of Medicine in King's College, &c. &c. (Lecture I. Concluded from p. 6.)

Autolaryngoscopy.—One of the most useful means of acquiring skill and confidence in the examination of the larynx is the practice of autolaryngoscopy—that is, the examination of one's own larynx. Various methods of autolaryngoscopy have been proposed and practised. The simplest and most satisfactory plan is one which is very easy of execution, and which requires no special apparatus. The concave reflector on the forehead, and the laryngeal mirror which is used in the examination of others, with a common looking-glass and a lamp, constitute the whole of the apparatus. The method of operating is this. Sitting at a table of a convenient height, I place a looking glass at a distance of about eighteen inches in front of me, and a moderator or a gas lamp on one side of the glass, but two or three inches further back, so that the light may not pass directly from the lamp to the mirror. Now, with the reflector on my forehead, I direct the light, as it were, into the open mouth of my own image in the looking-glass; then, introducing the laryngeal mirror into my mouth, I see the reflection of my larynx and trachea in the glass before me, and any one looking over my head or shoulder can see the image at the same time. This method therefore serves for autolaryngoscopy and for demonstration; in other words, the experimenter can, by this means, see his own larynx and show it to others.

This method certainly possesses some advantages over that employed by Czermak. In the first place, Czermak's plan requires a special apparatus, which is too complicated and costly to allow of its coming into general use. Although I possess Czermak's in-

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strument for autolaryngoscopy, I have quite ceased to use it, because I find the other plan easier and more satisfactory. I find, for instance, while I am holding the laryngeal mirror with my right hand, and changing the position of my head so as to obtain different views of the larynx, I can with the greatest readiness make any required change in the direction of the light by adjusting the frontal reflector with my left hand. This adjustment of the light cannot so readily be made with Czermak's apparatus on account of the distance at which the reflector is fixed on a brass stem opposite the experimenter.

For beginners in the art of laryngoscopy this method affords a very useful means of training and practice. One of the chief difficulties at first is to keep a steady light in the patient's mouth while the laryngeal mirror is being introduced. Now the student, after arranging his looking-glass and his lamp, may direct the light from the frontal reflector into his own open mouth in the looking-glass. This process differs scarcely at all from that which he will have to practise on his patients. Then, having learned to keep the light steady, he may practise the introduction of the faucial mirror, and he will soon see the interior of his own larynx and trachea. I have seen several of my medical friends and pupils succeed in doing all this within less than half an hour of their first attempt.

It is important to observe that in practising this method of autolaryngoscopy both eyes may be protected from the glare of the lamp. The lamp is most constantly placed by the side of the glass to the left of the operator. The right eye is then shaded by the lower margin of the reflector on the forehead, and the left eye may readily be shaded by one or two fingers of the left hand placed at the edge of the reflector. The fingers thus placed serve at once as a shade for the left eye, and a means of moving the reflector when the direction of the light has to be changed. If the experimenter desire to show his larynx to several persons at once, he can readily do this by having the mirror in front of him of small size, about three inches square, and fixed at a convenient height; the small flat mirror belonging to Czermak's autolaryngoscopic apparatus may be used for this purpose. Thus, while two or three persons standing behind him can see the reflection of his larynx in the glass, two or three others standing in front of him, and looking over the top and by the sides of the glass into his mouth, may see the direct reflection of the larynx from the faucial mirror.

In the practice of laryngoscopy, whether in the examination of one's own larynx or that of others, it is of primary importance that the operator should have the power of readily changing the direction of the light, so as at once to adapt it to the varying position of the body, which is often required for the thorough exploration of the larynx. A feebler light, which can readily be reflected in any required direction, is of more practical value in laryngoscopy than a stronger light which is fixed.

Some laryngoscopists on the Continent, and Dr. Walker of Petersborough, do not use the reflector for the purpose of lighting the throat, but in place of it they get a direct illumination of the fauces by means of a concentrated fixed light. A globular bottle of water in front of a lamp is used as a powerful condensing lens. In this way, certainly, a very bright light is obtained; but the objections to this mode of illumination are—1st, that the apparatus is clumsy, and cannot be carried about; and, 2d, the chief objection is that the direction of the light cannot be readily and instantaneously made to follow the movements of the patient's head. The fact of the light moving with the movements of the operator, which some consider an objection to the method of illuminating the throat by means of the reflector on the forehead, does, in fact, constitute one of its chief advantages.

With regard to the source of the light, I find it not difficult to see and to demonstrate my own larynx, as well as to examine the larynx of another, by the light of an ordinary candle; but a bright light renders the examination much easier and more satisfactory. The best artificial light is a moderator lamp, or an argand gas burner. The light may be much intensified by placing a metallic reflector behind the lamp, and a bull's-eye condenser at the proper focal distance in front, the flat side of the lens being next the lamp. I find that with a single bull's-eye condenser I get a better light than with Tobold's condenser, which consists of three lenses in a brass tube, and which is a more cumbersome as well as a more costly apparatus.

All observers agree in opinion that the light of the sun, when it can be obtained, is

the best means of illuminating the throat. The patient sits with his back to the sun, and the operator directs the light into the throat by means of the reflector. For this purpose the reflector need not be concave: a flat surface will give sufficient light. In using a concave reflector with sunlight, you must be careful not to burn the throat by concentrating the rays into a focus. *Solar* caustic, be it remembered, may be made even more powerful than *lunar* caustic. [Since this lecture was given I have found that the best mode of using sunlight in laryngoscopy is to place a looking-glass in such a position that it shall deflect the sun's rays on the frontal reflector, but leave the eyes of the operator in the shade. In this way we avoid the serious inconvenience which results from exposing the eyes to the direct rays of the sun. Both the patient and the operator are in the shade, a column of light being turned upon the frontal reflector by the looking-glass.] With sunlight it is not absolutely *necessary* to use the frontal reflector. The patient may face the sun, so that the rays fall directly upon the laryngeal mirror. But here, again, the advantage of the reflector consists in the facility with which it enables you in a moment to change the direction of the light.

The reflector on the forehead is a very useful means of lighting the throat for the purpose of examining the tonsils, palate, and pharynx. Placing a lamp or a candle by the side of the patient, or using sunlight when it is available, the operator, with the reflector on his forehead, throws the light into the throat, and has both his hands free to depress the tongue and to apply caustic or other local remedies. In cases of diphtheria and scarlatina, by this method of illumination a thorough examination of the throat can be made in a much shorter time than by the ordinary method, and without the necessity of raising the patient's head from the pillow. The operator in this way runs less risk of infection from inhaling the patient's breath, or from the morbid secretions being coughed into his face.

In the presence of a learned assembly such as I have now the honour to address, it is scarcely necessary to assert, that if in the laryngoscope we have an important aid in the diagnosis of laryngeal disease, such aid is by no means superfluous or uncalled for. The experience of every practitioner will enable him to recall cases in which there has existed the most painful doubt as to the nature of disease within the larynx. Mr. Porter, writing in the year 1837, says, "How is a man of experience, when he meets with a case of laryngeal disease, to know whether it is caused by an œdematous condition of the sub-mucous tissue—by a chronic thickening of the mucous membrane itself—by laryngeal ulceration—by destruction of the cartilages—by the presence of abscess or tumour, or by another of those numerous affections which dissection so frequently shows us to be the occasion of death?" And he suggests that "perhaps by reason of the difficulty of the subject, it will be long before we possess the same accuracy of information with reference to affections of the windpipe that has been attained in other diseases." What, now, has been the effect of that simple contrivance, the laryngeal mirror? May it not be said without exaggeration, that it has rendered the diagnosis of the diseases of the larynx more simple and more certain than the diagnosis of the disease of any other internal organ? In fact the larynx has ceased to be an internal organ, in the sense of being hidden from view, for it has been brought within the range of vision. And the answer to Mr. Porter's question is simply this, that the man of experience has now only to *look* into the larynx, and he will *see* what is the form of disease with which he has to deal.

In my next lecture I propose to give some illustrations of the valuable aid which the laryngoscope is capable of affording in both the diagnosis and the treatment of disease. During the few minutes that remain to-day, I purpose to advert very briefly to the subject of rhinoscopy.

Rhinoscopy.—Czermak, in his first publication on the laryngoscope, pointed out that the same method of examination was applicable to the inspection of the posterior surface of the soft palate, the posterior openings of the nasal fossæ, and the superior parts of the pharynx.

In the practice of rhinoscopy the patient should sit erect, without throwing the head back, while the light is thrown into the mouth by the frontal reflector. The tongue is to be kept down by means of a metallic depressor, which may be held either by the operator or by the patient. A small mirror is required, and it is better made of glass than of metal, on account of the rapidity

with which a metallic mirror cools and condenses vapour on its surface. I have two circular mirrors, which I find very convenient for rhinoscopy, one the size of a three-penny piece, the other the size of a sixpence.

When you are about to introduce the mirror, the patient should be directed to breathe quietly. A deep inspiration draws the uvula and soft palate upwards and backwards, and so interferes with the examination. The mirror is to be introduced by the side of the uvula, beneath the palate, with its surface directed upwards and forwards. The facility with which the examination can be made depends mainly upon the space which exists between the palate and the posterior wall of the pharynx. When the interval is a moderately wide one, the mirror can be introduced without touching the uvula or palate, and the posterior openings of the nasal fossæ, the turbinated bones, the opening of the Eustachian tube, the septum narium, the roof of the pharynx—all these parts may be distinctly seen.

In some cases the examination is facilitated by drawing the uvula and palate forwards by means of a blunt hook; but this is better avoided if possible, for it is always attended with much discomfort, and frequently the contact of the hook excites contraction of the palate, which is then drawn upwards and backwards so as completely to obstruct the view. The most successful rhinoscopic examinations that I have made have been accomplished without touching the uvula and soft palate. Very valuable information may sometimes be obtained by rhinoscopy.

Last year I was consulted by a gentleman, twenty-four years of age, who had complete obstruction of the right nostril. It had commenced two years ago, after a severe cold; and it had steadily increased until, at the end of about a year, it was so complete that he was unable by any effort either to inspire or to expel air through the right nostril. The left nostril remained pervious, but in consequence of the obstruction on the right side the patient habitually kept his mouth open, respiration being impeded when the mouth was shut; and the voice had somewhat of a nasal character. Examination of the nostril in front discovered no obstruction, nor was any abnormal appearance visible on examination of the palate and pharynx in the ordinary way through the open mouth.

He had a throat favourable for rhinoscopy: a small uvula, with the soft palate at some distance from the back of the pharynx, so that the mirror could be introduced without disturbing these parts. The left nasal fossa was quite normal, but the right was seen to be completely obstructed by a tumour, apparently of globular form, having a slightly granular surface, and a yellowish-green colour. It touched the floor and septum of the nose; and externally it pressed upon and concealed the turbinated bones. I could touch the tumour with a bent probe introduced behind the palate. I now asked my friend and colleague, Mr. John Wood, to see the patient with me, and to devise a plan for removing the tumour. He introduced a pair of slender curved polypus forceps through the anterior opening of the nostril, grasped the tumour, and as he was drawing it forward there was a sudden rush of a glairy fluid, like white of egg, and some membranous shreds came away between the blades of the forceps. The patient felt immediately that the obstruction was gone. On rhinoscopic examination the tumour had disappeared; the turbinated bones were plainly visible; and on the under side of the middle turbinated bone there was an abraded surface, from which, apparently, the tumour had been torn. The tumour had evidently been a globular cyst containing fluid. On the second day after the operation a portion of the cyst-wall came away. This I have preserved. It is smooth on its inner concave surface, but uneven on its outer surface, by which apparently it had been attached to the mucous membrane. During the first few days after the operation the abraded surface of the mucous membrane was covered by a purulent secretion: this quickly healed. The patient has lost all sense of obstruction in the nostril; he can breathe comfortably with the mouth closed; and the voice has recovered its natural tone.

The practical value of rhinoscopy in this case can scarcely be called in question. It is doubtful whether by any other mode of examination the position and nature of the tumour could have been determined with sufficient certainty to warrant an operation for its removal. I was relating this case to a friend, who remarked that my patient had more reason to congratulate himself than one about whom he was consulted. One nostril was obstructed, and it was supposed that a polypus was the cause of obstruction. A surgeon had made an unsuc-

cessful attempt to remove the supposed polypus by the forceps: this caused much suffering; and it was at last discovered that the obstruction was due to thickening of the turbinated bones.

Czermak, in the last German edition of his work,* gives a good illustration of the value of rhinoscopy in correcting an erroneous diagnosis. A young man deaf on the left side was found to have a tumour at the back of the nostril, which conveyed to the finger the impression of a polypus. An operation was contemplated, but a rhinoscopic examination discovered a tapering swelling of the mucous membrane, nearly as thick as the finger, surrounding the orifice of the left Eustachian tube; also great swelling of the middle and inferior turbinated bones; but no polypus, nor any tumour which an operation could have removed or lessened.—*Lancet*, May 28th, 1864.

HOSPITAL NOTES AND GLEANINGS.

Operation for the Relief of Constant and Severe Pain in a Case of Acute Mammary Scirrhus. — Continuous, agonizing, and wearing-out pain, that resists all attempts to produce relief by the most powerful anodynes, and which causes suffering that is most distressing to witness, justifies the adoption of almost any means to afford relief, be it even for a short time only. A case of this kind is now in St. Bartholomew's Hospital—a woman fifty-six years of age, who was admitted on the 6th of October with cancer of the right breast of six months' duration; but so rapid had been its progress, especially during the last few weeks, that it involved the entire gland, and presented a large and prominent mass of the acute form of the disease, with projecting tubercles, one of which on the left side was on the eve of bursting; and so continuous was the pain, that the patient anxiously solicited its removal. Mr. Lawrence remarked that, setting aside altogether the question whether the case was favourable for operation or not, he was determined to accede to the patient's request, and remove the affected breast solely to relieve her from suffering. The slightest examination of the breast induced pain; the countenance expressed anxiety, nervousness, and wretchedness, from sleepless nights and equally sleepless days; there was no desire for food, and emaciation was beginning to tell its tale. Such circumstances as these demand active surgical measures, not only to prolong life, but to render it free from suffering. Accordingly, on the 21st ultimo, chloroform having been administered by Mr. Lloyd, Mr. Lawrence proceeded to remove the mass of disease, which involved a portion of the integuments. There was not so much hemorrhage as might have been expected, considering the acute character of the malady and its inflamed external appearance; nevertheless a large number of small vessels required ligature, which rendered the operation tedious and prolonged—in part due to the time taken by the operator in tying most of the vessels. During the operation, and especially at the early part of it, the subclavian artery was compressed with the finger, with the object of diminishing the free hemorrhage that was expected. The wound was closed, and the patient sent to bed.

Oct. 29th. The result of the removal of the diseased breast has been most gratifying, for pain has wholly disappeared, comfortable sleep has been gained, the appetite has returned, and the patient's spirits and hopes have so improved that she can scarcely be recognized as the same person. It may be asserted that she has uninterruptedly progressed without an unfavourable symptom. The wound is rapidly filling up, the discharge is healthy, and there is fair promise of an early cicatrization.

When we again saw her, two or three days back, all the favourable conditions just mentioned were still present; and an immunity from the disease will be experienced, it is to be hoped, for some time to come.—*Lancet*, Nov. 5, 1864.

Compound Fracture of the Skull without Cerebral Symptoms—recovery.—It is interesting to find a man with an injury of this kind in whom no special symptoms appeared, and it is satisfactory to know that a patient may recover completely in little more than a fortnight from an accident which is frequently so serious in its results.

The chief danger early in such a case would be acute arachnitis, and this the patient escaped. But we must keep carefully in mind that patients not unfrequently

* Der Kehlkopfspiegel und seine verwthung, für Physiologie und Medizin, pp. 127-8. Leipzig, 1863.

come to us for epilepsy or epileptiform convulsions giving just such a history as the following of past injury to the head. And as, of course, the patient comes under the care of the surgeon for the injury and of the physician for the epilepsy, the clinical history of cases of epilepsy from injury to the head is very incomplete. It is very important to watch the future progress of cases of even slight injury to the head after recovery. Besides the occurrence of epilepsy after an interval of apparent health, we sometimes have abscess of the brain.

John S., aged 27, a table-knife blade grinder, came to the out-patients' room of the Sheffield General Infirmary at noon on November 6, 1863. He stated that two days before, when slightly intoxicated, he received a blow on the head inflicted by a comrade with a stool. He was insensible for a few moments, but quickly recovered, and went to a druggist's with a wound on the forehead, which bled freely. The wound was dressed; but the bleeding continued more or less until the patient came to the Infirmary. On examination there was found a contused wound of two inches in length situated in the upper part of the right frontal region, with a fissure of the corresponding part of the skull around which the periosteum was torn off. There was no depression of bone. Two vessels bled freely, which were tied by Mr. Hall, who saw him at the time. The patient was a man of repulsive countenance and ill formed, but intelligent. He was pale from loss of blood; quite sensible; pupils both large and rather inactive; pulse moderately full and of natural frequency. He said he felt very well; and refused to be made an in-patient. Some sutures were put in the wound and dry lint over it. He had a dose of aperient medicine, and was ordered to come again the next day.

November 7.—Slept well; says he feels well; has no headache; wound looks quiet.

9th.—Going on well; wound suppurating freely; says he feels well; pupils normal; pulse 70, regular; has no headache. The wound was dressed with lint and strapping.

14th.—The patient has been to the Surgery every other day to have the wound dressed; it is now nearly healed by second intention; general health good.

21st.—Wound quite healed; patient discharged cured.—*Med. Times and Gaz.*, Dec. 24, 1864.

Complete Dislocation of the Astragalus Forwards and Outwards; Excision of the Bone.—During the first six weeks of the current session several of the larger operations have been performed at the Charing-Cross Hospital, including the removal of the superior maxilla, two cases of Pirogoff's amputation, and one of Chopart's amputation of the forearm and of the leg, and excision of the head of the humerus and of the astragalus. From amongst these we select the following case (the notes of which were furnished by Mr. W. Travers, resident medical officer) of dislocation of the astragalus, wherein it was found necessary to excise the bone. The symptoms are very accurately described, and show that not only was the bone displaced forwards and outwards, but at the same time it was twisted on its long axis, so that the dislocation was complete. Reduction under such circumstances was found to be impracticable, and it was deemed the more prudent course to excise it, in carrying out which measure a part of the bone was found in a comminuted condition.

W. P——, aged forty, a tailor, residing at Holloway, was admitted on the night of Sunday, Oct. 30th, with a dislocation of the astragalus of the right foot forwards and outwards. He says that some two hours previous, whilst walking in the fields in his neighbourhood, it being very dark, he stumbled into a dry ditch about two feet in depth, his foot twisting under him.

When admitted, the ankle appeared much distorted, the foot being inverted, and its outer side resting on the ground. The outer malleolus was very prominent, and the skin over it extremely tense. Immediately in front of this, and nearly on the same level, was a hard projecting surface, apparently smooth and rounded at its margin—being indeed, to all appearance, the navicular articulating surface of the astragalus, the long axis of which was placed transversely, instead of being in its natural oblique position. This portion of the astragalus—its head—seemed to rest on the calcaneum and cuboid bones at their junction; the skin over this part was very tightly stretched and already discoloured. The upper articulating surface of the bone could be distinctly felt internal to and beneath the external malleolus. The internal malleolus could not be distinguished, being, as it were, hidden in the soft parts forming

the inner side of the foot. The arch of the foot was partially lost, and the length of the heel diminished. It seemed, therefore, not to be a mere dislocation of the bone forwards and outwards, but that, in addition, the astragalus was twisted on its own long axis.

Chloroform was administered, and reduction attempted, but in vain. After a consultation with his colleagues, Mr. Canton excised the astragalus by making a horseshoe incision, commencing just above the outer malleolus, carrying it forwards around the projecting head of the astragalus, and terminating beneath the same malleolus. Reflecting this flap, the bare head of the bone was seen projecting; it was seized, the adhering ligamentous structures carefully dissected away, and the entire bone removed. It was then found that a portion of the posterior and internal angle was broken off and remained in a comminuted state, still adherent to the internal lateral ligament of the joint; the inferior margin of the head was also somewhat bruised. The edges of the wound being brought together, an iron splint with a foot-piece was adjusted, and the patient removed to bed.

The case has progressed favourably up to the present time, and it is expected that a good recovery will ensue.—*Lancet*, Dec. 10, 1865.

Obstruction by Clot of Right Middle Cerebral Artery Unattended with Heart Disease, and in a Patient who had been Suffering from Secondary Syphilis—Clinical Remarks.—J. C., aged 27, a carpenter, was admitted into St. Thomas's Hospital, under care of Dr. Bristowe, on May 2, 1863. It appears that on the morning of April 28 he went as usual, and seemingly in good health, to his work; that about 9 A. M. he was suddenly attacked with pain in the head and giddiness, without loss of consciousness; and that at the same time he lost the use of his right arm and of both legs. It was stated that he had been a temperate and healthy man, that he had never before had anything like a fit, or rheumatism, or, in fact, any serious illness, except syphilis. This latter disease he had contracted four years before, and had had secondary eruptions at intervals since.

On admission he was found to be perfectly sensible, but his speech was imperfect. He had in great measure recovered the use of his legs, but his arm continued powerless. Sensation was everywhere perfect. His pupils acted naturally, and his eyesight and hearing were unimpaired. His face was slightly drawn to the left, and he protruded his tongue with a slight inclination to the right. He complained only of some giddiness and of some aching in the shoulders. His excretions were passed naturally, but the bowels were inclined to be constipated. His tongue was white and moist; his appetite poor. The heart-sounds were natural. He remained for about ten days in much the same state. It was then noticed, for three or four days, that he was very drowsy. Still no material change in his condition occurred until the morning of the 16th, just after the visit. At that time he was complaining somewhat of pain in the head, and became suddenly insensible, and continued almost perfectly insensible up to the morning of the 18th inst., when Dr. Bristowe saw him again. At that visit, when loudly addressed, he partially opened his left eye, but took no further notice. There was complete ptosis of the right eyelid, which was said to have existed only since the morning. The pupils acted. The left arm lay perfectly still, but all the other extremities were slightly convulsed at times. His evacuations were all passed unconsciously. The pulse was 80.

He survived ten days, during which time his condition varied but little. During the first half of this period he had intervals of imperfect consciousness, during which he would open his eyes when spoken to, and endeavour even to put out his tongue; but afterwards he became wholly comatose. At first the pupils (though dilated) acted equally to light; latterly they acted a little irregularly, and the day before his death their axes were divergent. The paralysis continued throughout; but towards the close of life all convulsions ceased. The evacuations continued to be passed in bed, but the bowels were only relieved after the use of injections. The pulse gradually increased in frequency, until it attained, the day before death, a maximum of 140. During the last day or two of his life the breathing also became hurried, but unattended with cough, and his face became shrunken and ghastly. He died on the morning of May 28.

Post-mortem Examination.—There was

the scar of an old wound on the scalp. The internal surface of the cranium was healthy. The arachnoid membrane was somewhat opaque and there was some turbid fluid in the arachnoid cavity. The pia mater was somewhat congested. The arteries at the base of the brain were healthy, with the exception that the right middle cerebral artery was obstructed by a firm, partly decolorized clot, which completely filled it, just before its division into branches. The middle lobe of the right cerebral hemisphere was softened, and the gray matter of some of its convolutions congested. The gray matter of the two central convolutions was paler than usual, and somewhat yellowish—the boundary between the gray and white matter being ill-defined. The gray matter of this portion of the brain presented under the microscope numerous compound granule cells; and similar cells, but in smaller numbers, were discovered in the adjoining white substance. The left corpus striatum contained a cavity about one-third of an inch in diameter. This had vascular walls, and contained some turbid fluid, which contained numerous large compound granule cells, with some nerve-cells and blood-corpuscles. The rest of the brain was healthy. The lower lobes of both lungs were congested and in a state of lobular pneumonia. The heart was in every respect healthy, the valves being entirely free from vegetations. The right ventricle contained a large quantity of yellow fibrinous clot, extending into the pulmonary artery. The capsule of the liver was thickened in patches, but the organ itself, beyond being a little fatty here and there, was healthy. The spleen was somewhat large, and its capsule was thickened. The kidneys were rather small, and presented on the surface a few irregular depressions. The remaining viscera were in a healthy condition.

Remarks by Dr. Bristowe.—The whole case is interesting in several points of view. First, there was obstruction by clot of one of the middle cerebral arteries, without heart disease, or, so far as could be detected, any source of embolism. The clot had doubtless formed in the situation in which it was discovered. Second, the patient had suffered until within a short time of his death from secondary syphilis, a condition which I have shown on a former occasion (*Path. Trans*, vol. x. p. 44) to be a not improbable cause of the obstruction by clot of cerebral arteries. In comparing the history of the above case with the appearance noted on dissection, there can be little doubt, I think, that obstruction of the right middle cerebral artery had produced the sudden change of symptoms which took place on May 16, and led to the disorganization on the right side of the middle lobe of the cerebrum. Whether, however, his first attack of paralysis (which evidently had some connection with the cavity formed in the left corpus striatum) had been the result of arterial obstruction on the left side, or of an ordinary apoplectic attack must remain doubtful. Against the first view must be placed the fact that no obstruction of the corresponding middle cerebral artery was detected; against the second, the fact that no remains of blood, no orange-tinted discoloration of the parietes of the cavity, and no hæmatoid crystals were recognized. It is possible that obstruction of some of the minute terminal branches of the artery may have been, in this case, the cause of obstruction.

I have not thought it necessary to give the details of treatment in the above case. It is sufficient to say that the treatment was of an ordinary character, and that it was wholly unattended with beneficial results. —*Med. Times & Gaz.*, Nov. 19, 1864.

MEDICAL NEWS.

DOMESTIC INTELLIGENCE.

Chronic Diarrhœa.—We are requested by Dr. DAVID STEWART, of Port Penn, Delaware, to recommend the use of *pure* precipitated carbonate of zinc in chronic diarrhœa and dysentery, especially those intractable cases that so frequently are the sequelæ of the typhoid fever of the Army Hospitals. Dr. Stewart assures us that he has treated such cases successfully after they had resisted the ordinary treatment in the hospitals; but he is not satisfied that the remedy deserves the credit of the cure in every case, as its employment was in several instances connected with the use of an atmosphere remarkable for its salubrity, also with good diet and other hygienic means. Nevertheless, his success with the remedy seems to indicate its use by others who have more extensive fields for observing its effects. "Dr. S. was

formerly a teacher in the Medical Department of the University of Maryland and other schools of medicine in Baltimore," and his statement is entitled to consideration. His formula is as follows:—

℞. Zinci carbonatis præcip. pur., ℥ss.
Morphiæ sulphatis, . . Gr. iij.
Cretæ præparatæ, . . ℥ijss.
Olei cinnamomi, . . Gtt. vj.
M. fiant pul. xij.

Sig. One powder to be given at intervals of three or four hours, p. r. n.

—

New U. S. Hospital.—It is stated that a new hospital of great size is to be built on the Severn River about ten miles from Annapolis, Maryland. The grounds upon which it is to be erected are very extensive, so as to afford ample space to the patients for out-door exercise, and with every accessory which can contribute to the speedy recovery of patients.

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Surgeon-General of New York.—Dr. S. D. Willard, of Albany, has been appointed Surgeon-General of the State of New York on the staff of Governor Fenton.

—

Starling Medical College Hospital.—It is said that a hospital is to be organized at Columbus, Ohio, in connection with Starling Medical College, which is to be placed under the management of the "Sisters of St. Francis."

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Philadelphia College of Pharmacy.—We are glad to learn from our contemporary, the *American Journal of Pharmacy* (Jan. 1865), that this school is recovering from the depressing influence exerted in scientific institutions by the existing condition of our country, and that the class the present session numbers 106.

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Obituary Record.—Killed, December 9th, 1864, in action near Bellfield, Va., by a shell, Dr. Lucius M. Sargent, Jr., Lt. Col. 1st Mass. Cavalry. It is stated, in an editorial in the *Boston Med. and Surg. Journ.* (Jan. 12, 1865), that "Dr. Sargent was born in Boston, Sept. 15th, 1826. His life, not a long one, was unusually varied and full of incident. At school, college, before the mast, as artist, physician, or soldier, he was always among the foremost where expedient, energy, talent, and courage were necessary for success. He had seen much of the world, and knew well both books and men. To whatever he undertook, he gave his whole energy with characteristic devotion. * * *

"In his last action he fell at the end of a successful charge, at the head of his column, sword in hand, at the very moment of victory.

"Strong-handed, yet tender-hearted—impulsive, yet tenacious of purpose—utterly without fear, yet watchfully cautious—gallantly daring in assault, yet undauntedly courageous in deadliest combat—of none of the patriot heroes who have nobly perished in unselfish efforts to save their perilled country, are the poet's words more *literally* true:—

'With knitted brow and lifted blade
In glory's arms he fell.'"

—

FOREIGN INTELLIGENCE.

Structure of Nervous System and Action of Poisons on Nervous Tissue.—M. Roudanowski has recently read, at the Académie des Sciences, a memoir of some importance on the structure of the nervous system, and a new mode which he has devised of investigating it. This last consists in slicing the nervous tissue previously frozen at a temperature of from 10 to 15 Reaumur. These slices are coloured by means of an aqueous decoction of cochineal, and then covered with Canada balsam or with a mixture composed of six or seven parts of *ichthyocoll* and eight of glycerine. Having described the minute structure of the spinal nerves and of the nervous centres, he gives an account of his observations upon the action of poisons on the nervous tissue. 1. Having poisoned cats, dogs, and rabbits by strychnine, nicotine, opium, and chloroform, he has found that all these substances induce changes in the nervous tissue. 2. The more energetic of these, as strychnine and nicotine, induce alterations in the nervous cells and their branches, while chloroform, opium, and perhaps alcohol, induce changes in the myeline. 3. The changes consequent upon nicotine are indicated by the strong pigmentation and destruction of nervous cells, with their prolongations only in the spinal cord at the point of commencement of the hypoglossal and vagi nerves. 4. Under the influence of these poisons he has remarked that, together with the congestion of the vessels

of the roots of the nerves of the spinal cord, the reservoirs also increase in size. 5. A drop of an energetic poison, such as nicotine, kills a large animal, not because it chemically alters the metamorphic processes of the entire economy, but because it destroys small organs like these nerve-cells, which are the origin of the nerves of the principal vital organs. 6. Opium and chloroform act on the myeline, which, in place of assuming the form of amorphous granules, takes on that of brilliant shining bodies.—*Med. Times and Gaz.*, Dec. 31st, 1864.

Deaths from Chloroform.—Dr. J. H. Huxley reports (*Lancet*, Nov. 19, 1864) the two following cases: W. L.—, a healthy young man æt. 24, was admitted into Devon and Exeter Hospital on Sept. 26th, suffering from a severe injury to the right foot. A heavy piece of timber falling on it had fractured the metacarpal bone of the great toe, and deeply lacerated the structures of the inner side and sole. The case went on well, and after the separation of some rather extensive sloughs, healthy granulations filled up the greater part of the chasm. The distal end of the fractured metacarpal bone, however, though evidently dead, remained firmly fixed, and considerably hindered the progress of the wound. The man was, therefore, told that he must either be contented to remain in bed several weeks longer, while the bone spontaneously separated, or must submit to a slight operation for its removal. He chose the latter, on condition that he might have chloroform. The heart was examined, and nothing being found to contraindicate the employment of an anæsthetic, the wish was acceded to.

On Nov. 1st, at ten A. M., the patient was carried to the operating room. Two of the hospital surgeons and the house-surgeon were present; three pupils and two nurses were also in attendance. Forty minims (measured) of chloroform were placed in a Snow's portable inhaler, and the inhalation was commenced, the external valve being at first turned aside, and afterwards gradually closed. The man breathed calmly, and showed no symptoms of annoyance or distress, and in about a minute began to smile, talk, and move his head slightly. The pulse, which was kept throughout, beat quite steadily for from two to three minutes, when it suddenly became imperceptible. There was no congestion or other change of the countenance; the pupils were not dilated, and the breathing was as yet quite natural. The inhaler, to which no fresh charge of chloroform had been added, was, however, immediately removed. In the course of a few seconds the respiration became deep and sobbing, and the tongue was protruded between the teeth. No return of the pulse could be felt. The only approach to spasm or convulsion was, that for a few seconds the teeth were firmly clinched. This quickly passed off, and the tongue was again protruded. The time during which the respirations continued, unaided, after the pulse had ceased, may be put down at fully a minute, and not until still later did the face become congested, or the pupils dilate. The cold douche, ammonia, brandy, galvanism, and forceps for the tongue were (as is always the case at this hospital) at hand in the operating-room. The first was applied directly the pulse was missed, and in the shortest possible space of time brandy was injected into the rectum, solution of ammonia on lint was applied to the nostrils, and galvanic shocks were passed (with due intermission) through the cardiac region, whilst friction was applied to the extremities. The forceps were not needed, as the tongue did not fall back. Immediately the breathing began to flag, artificial respiration by the "Silvester method" was commenced, and this was steadily carried on for upwards of half an hour. The galvanism was applied at intervals for a like period. No trace of reaction occurred. It should be stated that the inhaler had not been used for any other case that morning, so that it contained absolutely no chloroform but the forty minims.

Autopsy six hours after death.—Body muscular, well nourished.—Thorax: Pericardium natural; surfaces of right pleura everywhere firmly adherent; both lungs healthy in structure, the right more congested than the left. On removing the heart (all the orifices having been previously secured), the ventricles were found firmly contracted and empty; the auricles contained some blood, the right in larger proportion; in these and in the large veins the blood was mostly, but not wholly uncoagulated. All the valves of the heart were perfectly healthy. The muscular substance was firm, of good colour, and without the slightest appearance of fatty or other degeneration. On microscopical examination, the ultimate

fibres were found free from oil-globules, and the striæ were well marked. The walls of the left ventricles were slightly hypertrophied, without dilatation. The whole organ, washed free from blood, but with a portion of the large vessels adhering, weighed fourteen ounces and a half. Aorta healthy; no appearance of clots in the pulmonary artery.—Abdomen: Stomach moderately filled with food. Spleen natural; weight eleven ounces. Liver large, congested; weight five pounds twelve ounces. Kidneys large and much congested; weight—the right nine ounces and a quarter, the left nine ounces and three quarters. Both liver and kidneys were firm to the knife, and the surface of the section looked smooth and rather glistening, so that there was a question as to albuminoid (amyloid) degeneration; but there was no semi-transparent, glue-infiltrated appearance of the cut surfaces and edges; no reaction characteristic of amyloid change took place when solution of iodine was applied. Under the microscope, too, both the arteries and cells of the hepatic and renal structures appeared perfectly natural. After being allowed to remain for some hours (covered over to prevent evaporation), it was found that a quantity of blood had drained from the cut surfaces, and that the liver had assumed the ordinary size, while the kidneys were much reduced in bulk. Sections now freshly made showed perfectly natural surfaces—Head (examined last): The brain and its membranes were perfectly healthy, and not at all congested; blood, however, had probably drained away from the divided veins of the neck. Some urine drawn off from the bladder after the examination contained a trace of albumen, and a flocculent deposit consisting solely of epithelium.

At the inquest held on this case the jury returned a verdict of "Homicide by misadventure," and wholly exculpated the medical officers from blame in the matter.

The following case, which occurred in this hospital about three years ago, is subjoined, as it was not reported in any medical journal nor sent to the Chloroform Committee:—

R. G——, a very healthy-looking man, aged thirty-three, wished to have chloroform to avoid the pain attending cauterization of a sloughing sore on the penis. One drachm of chloroform, by measure, was placed in the inhaler and inhalation commenced. The patient soon became very restless, holding his breath and trying to avoid the vapour (which was, however, much diluted), so that the larger portion of the chloroform was wasted. He was allowed to sit up to spit, and then a second (measured) drachm was put into the instrument; but again he grew turbulent, and struggled so violently that it was found difficult to watch the pulse continuously, though every effort was made to do so. Suddenly he sank back motionless, with widely dilated pupils, and no trace of pulse to be felt. The inhaler was instantly removed from his face, and he continued to draw deep, gasping breaths for half a minute. Cold splashing was used, and artificial respiration by the "Marshall Hall Method" was resorted to without the smallest delay. Ammonia was applied to the nostrils, and subsequently a brandy injection was given, while galvanism and friction were assiduously employed. Pressure over the cardiac region (as suggested by Dr. Brown-Séquard in his lectures at the College of Physicians) was also tried. The artificial breathing was afterwards continued by the "Silvester Method" for upwards of an hour. No sign of returning animation occurred.

At the *post-mortem* examination, the heart was found to be of normal size, the ventricles were partially dilated, and both contained fluid blood. There was no valvular disease. The muscular structure was firm, of good colour, and without trace of fatty degeneration. The brain, lungs and abdominal organs were all carefully examined, but no sign of disease was found, nor was there marked congestion of any organ.

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Parasitism in the Production of Disease.—All living beings, from the moment of their birth to the hour of death, carry on, without interruption, some definite chemical process. Thus, *e. g.*, animals take oxygen from the air in order to burn up part of their substance, whilst plants decompose carbonic acid, retain the carbon, and return the oxygen to the atmosphere. The same law holds good with respect to the microscopic organisms in question. But with them it would appear to be the case, that certain chemical acts are proper to only certain species. We know, for example, that the yeast of beer transforms sugar into alcohol and carbonic acid; and further, that it (the

Torula cerevisiæ) can only continue to live in the performance of this process. So soon as the sugar has become exhausted, the vegetable being dies. The plant cannot form alcohol directly, but it can produce a vast quantity of sugar, which it spreads throughout numerous fruits, stems, leaves, and roots. Let the plant die, and these sugars, dissolved in water, are instantly invaded by the little torula, there naturally developing itself, and transforming them into "fermented fluids." Thus wine, cider, beer, and analogous drinks, are originated. In its turn, alcohol mixed with water becomes the receptacle of a particular species of *vibrio*, individuals of which, interlacing on the surface of the fluid, form there a sort of membrane. This vibrionic membrane is endowed with a different power to the mass of yeast. It absorbs with great energy the oxygen of the air, by means of which it partially burns the alcohol, transforming it into vinegar. Further, if the vinegar be left exposed to the air, sooner or later it becomes invaded by the mycoderm of wine, which burns up the vinegar, and makes carbonic acid and water out of it. It is a *vibrio* which curdles milk and produces cheese, a *torula* which makes bread; in fine, wherever a vessel containing infusoria or a colony of these little workers is found, there will be established a manufactory of some chemical product of which man avails himself on a very large scale. Now that which is true in reference to the sugars of the vegetable world, we find repeated in connection with other organic compounds. No sooner does death occur than the corpse of the animal is delivered over to mucedinous fungi, which people its surface, and to certain infusoria, which develop in its interior. They attack its blood, its muscle, and, sooner or later, all of its tissues. The work of one species being completed, another minute animal or plant succeeds it, until all is accomplished—that is, in other words, the once living, breathing, perhaps speaking, matter is giving back to the inorganic kingdom in the form of water, carbonic acid, and ammonia. This wonderful series of events the physiologist can ever turn to with amusement and instruction. But not the physiologist alone, for the *pathologist*, whether of plants or of animals, has some work done for him by these microscopic beings. Certain of the mucedinous fungi will attack the grape, corn, the potato, &c., and then public calamity will ensue. Nor do animals escape. "Muscardine" overgrows the silk-worm, and "ringworm" flourishes on dirty boys' heads. In the opinion of many, too, such terrible diseases as cholera and plague are fundamentally owing to the invasion of the blood by some of these minute living creatures. To no more interesting account of what such little organisms do towards originating disease can we refer the reader than to the paper of Dr. HENRY KENNEDY, in the *Dublin Quarterly Journal of Medical Science* for February, 1863. In this paper will be found the history of a case in which a disease impossible to distinguish from measles was apparently produced by the fungi of musty straw. References to analogous instances occurring in America may be also there met with; whilst in the *American Journal* for October, 1862, is a communication "showing, and in a very clear way, the prophylactic power which the inoculation of straw fungi exercises over the human frame, even when exposed to the contagion of ordinary measles."[1] According to FUCHS, DE LA FOND, SIGNOL, DAVAINE, TIGRI, &c., such diseases as the "sang de rate" of sheep, typhoid fever and influenza in man, depend on the introduction of *bacteria* into the mass of the circulating fluid; that these diseases may be propagated by inoculation from animal to animal, and from animal to man, by introducing into the body such of the diseased parts as contain these "bacteria," and which in many cases will also locally give rise to malignant pustule. A still further step is made by M. SIGNOL, who states "that the presence of fat in the tissues and liquids of the system in certain diseased animals, and the resemblance of these 'bacteria' to those which are produced during butyric fermentation, favour the presumption that fat plays a very important part in the progress of the disease." In face of much that has recently been asserted in support of this mode of production of disease—an extension or modification of the long-known doctrine of para-

[1] Justice to Dr. Salisbury, the author of the paper here referred to, requires us to state, that he was the first to notice this production of measles by the fungi of musty straw, and it was not until *after* the publication of his paper that Dr. Kennedy understood the significance of his case. The writer in the *Lancet* with characteristic unfairness states the case so as to imply that the merit of the discovery was due to his own countryman.—ED. MED. NEWS.

aitism—it is but right to allude to the late investigations of MM. LEPLAT and TAILLARD, who, from direct experiment, draw the following conclusions:—

1. When bacteria or vibriones are introduced through any medium into the blood of an animal, they do not produce any injurious results, unless, indeed, the medium itself contain certain virulent agents, for the action of which the forementioned bodies are not responsible.

2. If the vehicle employed in injection contain putrid matter in large quantity, there is poisoning of the blood; but this is not productive of contagious disease, since the blood thus contaminated does not produce similar effects when thrown into the system of another animal.

3. The statements concerning Penicillum glaucum producing psoriasis, and Oïdium Tuckeri phlegmonous inflammation, are not to be depended upon; for the injection of the sporular germs of either of these fungi into the veins of dogs is not followed by any ill effects on these animals.—*Lancet*, Dec. 24, 1864.

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Trichiniasis in India.—Trichiniasis is said to be rather common in India, and the great cause of it is diseased pork. The Sanitary Commission tell a revolting story of the way in which pigs, and even sheep, are fed in many parts of India. They get nothing but the most filthy description of offal, and then human beings eat the flesh, and get trichina spiralis. Some of the details are so unpleasant as to forbid narration; but those who know India and the personal practices of the natives will understand the full force of this statement by Dr. Gordon: "In an incredibly short space of time after the villagers have left the field it is as if they had never been there, while the herd by which the clearance has been effected may be found in some shady place near, or close to a tank, with a few of the more insatiable that have gone to hunt for dead dogs, cats, cattle, and Hindoos that have paid the debt of nature since the previous meeting, and have been thrown or left on the plain to be devoured by domestic animals or vultures." English people will find it hard to believe that flesh thus fattened is used for food, yet it causes no surprise here. The Sanitary Commission say: "In more than one official report received by the Commission these habits of Indian pigs are spoken of with something like actual approval, and one officer appears to consider that by the regular employment of pigs the necessity for entertaining conservancy establishments for the removal of filth may be to some extent avoided." Sheep are fed in this manner also. It may be necessary to add that in many of the principal stations in India the Europeans are safe from this danger, on account of the mutton clubs, which keep properly grain-fed sheep, and distribute the joints among the members. But in the large towns the servants buy meat in the bazaars without regard to what it has been fed upon. In a country where nature itself is always fighting against human life, we are obliged to live under conditions which would be thought utterly destructive in the most temperate regions of the globe. The food is bad, the water is bad, the air in the plains is like so much poison; the streets are foul with every kind of nuisance, drainage is impossible, the dead are left unburied, or just put an inch below the ground; and, in short, an army of hostile circumstances conspire against the health.—*Lancet*, Dec. 24, 1864.

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Legouest on Hospital Hygiene.—M. LEGOUEST, during a discussion at the Paris Hospital Society, observed that the conclusions drawn respecting the salubrity and mortality of civil Hospitals were liable to error, in consequence of the complexity of certain conditions, rendering them with difficulty comparable. In this point of view Military Hospitals are more safe objects of study, the elements for examination being so similar. He has, therefore, investigated the mortality returns at different epochs of the three military Hospitals, Val de Grace, Gros-Caillou, and Vincennes. From an elaborate statistical account for the thirty-four years, 1830–63, it results that the various hygienic improvements which have been put into force during that period, and the diminution of the number of patients placed in the wards have invariably been accompanied by a diminution in the ratio of mortality. This conclusion holds rigidly true whether different periods of the history of each of the Hospitals be compared, or whether the three Hospitals be compared with each other. The practical conclusions which M. Legouest arrives at are: 1. That Hospitals should be placed not within towns, but in their suburbs; 2. They

should be constructed in line, consist of a single story, and be surrounded by courts and gardens; 3. Where this is impossible, the means of periodically and entirely evacuating wards which have been long occupied should be provided; 4. The mortality is proportionate to the number of patients accumulated in a Hospital; all else being equal, the larger the population of the Hospital the greater its mortality.—*Med. Times and Gaz.*, Nov. 19, 1864.

Sanitary Condition of Armour-clad Ships.—The following remarks on this subject, which we extract from a recent number of the *Lancet* (Dec. 24, 1864), is of especial concern to us in this country, where we are building so many of this class of vessels.

Lord Clarence Paget, the Secretary of the Admiralty, when addressing his constituents at Deal, a few days ago, made the following remarkable statement *à propos* of the *Victoria*—a line-of-battle ship, and, as things go, "totally unfit for all the purposes of warfare"—being sent as flag-ship to the Mediterranean. He said:—

"It is not done because we think the dignity of the Admiral requires a three-decker, as has been erroneously supposed by some; but it is simply because, attached to every large squadron, you require to have a roomy well-ventilated ship, aboard of which you may put a vast number of supernumeraries—that is to say, the reinforcements which are constantly being added to the crews of that fleet. *If you were to put them on board of armour-plated ships, the men would, from want of ventilation, speedily become utterly useless, and have to go into hospital.* And, therefore, until we can find a means of ventilating our armour-plated ships, we must be satisfied to have attached to our squadrons one or more of these large roomy ships, on board of which all of what you may call the municipal duties of the fleet can be performed. I take the case of the flag-ship *Victoria*. Why, in the flag-ship in the Mediterranean we have at all times a great number, sometimes as many as two hundred supernumeraries, put at once on board of that ship. I ask, would the people of this country be satisfied if they heard that we had cramped up our men and caused fevers and diseases to break out among them because we had thought fit to put them on board of such ships only as were fit to go immediately into action?"

It would seem, then, according to the Secretary of the Admiralty, that our now numerous armour-clad ships are to be looked upon as little better than pest-ships, except for temporary purposes; that whatever advantages our fleet may have gained, by armour, in fighting capacity has been lost in health capacity. To save the crews from the more remote contingencies of warfare they have been exposed to the more immediate dangers of deadly and ever-present disease. Under the old system of naval construction, for one man lost in actual strife several were needlessly lost from disease. Under the present system, while the probabilities of the former source of loss are diminished, those of the latter are believed to be increased immeasurably.

History teaches us that the protection derived from defensive armour in the field of battle was so greatly outweighed by the hindrance to facile motion, that in the end mail and bucklers were done away with, and men put their trust in a better system of offence and greater agility. Is this also to be the history of armour in the navy? At least it must be admitted that there is a close parallel between the sanitary aspects of the question; and that, while casing our ships in armour, we have brought the crews into the same miserable health-condition which was peculiar to the mediæval warrior clad cap-a-pié in steel. But can it be that naval science halts so that she is unable to solve the question of ventilation of the between-decks of an ironsides? Or is it that she obstinately refuses, in spite of warnings and experience, to give to the question the degree of importance it deserves, and submit it to the same careful consideration which is at all times conceded to the fighting and sailing qualities of a ship? It is permitted to us, in the absence of satisfactory evidence to the contrary, to assume that the latter suggestion is the correct one. We have just grounds to believe that the question of ventilation is not beyond the reach of solution. When Mr. Radcliffe brought this subject before the Public Health Section of the National Association for the Promotion of Social Science, during the discussion on Dr. Gavin Milroy's paper on the Health of the Navy, at the London meeting in 1862, the President of the section, Mr. Fairbairn, expressed the opinion that there were no insuperable difficulties in the way of ventilating the between-decks

of armour-clad ships. He pointed out, moreover, that in ships of the *Warrior* class, with but two capacious between-decks, the facilities for artificial ventilation were greater than in wooden line-of-battle ships. * * * *

London Bakehouses.—Since bakehouses have been liable to inspection and subject to sanitary regulation, some improvement has taken place; but as a proof how much more is needed, let us give the following extract from the report of Dr. Ballard, the able medical officer of health for the parish of St. Mary, Islington:—

"I have before me the returns made by the Inspector of Bakehouses, who since his appointment has visited 192 bakehouses. He has furnished the particulars relating to each upon a form which I drew up for his direction. It may be as well that I should at once supply, for the information of the vestry, an analysis which I have made of Mr. Godbold's returns.

"1. Of the 192 bakehouses, seventy-two, or more than a third, are stated to be dirty—some very dirty. In many more, not thus returned as *generally* unclean, the walls and ceilings are described as dirty or dilapidated. In one, besides an accumulation of rubbish, a horse was kept in the bakehouse.

"2. In fifty-one the paving or flooring was broken or in bad condition. In one a defective drain ran beneath the bakehouse at the spot where the man stood to work at the trough, and the soil rose between the stones as they were stepped upon. In three the floor was undermined by rats—a pretty sure indication of foul effluvia. In one the walls were damp from leakage from a neighboring drain.

"3. Seven were without any means of ventilation whatever. In the rest the ventilation varied from excellent to very imperfect.

"4. In three there was no proper sulphur flue.

"5. In three a panned privy without proper water supply, or very dirty, was situated on the same level with the bakehouse, and near enough to introduce foul effluvia into it. In three other instances the privy was within the bakehouse itself; in one of these there was neither pan nor trap, the privy consisting of a bar of wood over an opening in the drain.

"6 In two the storeroom was dirty; in one of these there was also a stench from a drain.

"7. Twenty instances were discovered in which the bakehouse was used as a sleeping place, the custom where this was found being to admit the men some hours before the time for commencing work, so as not to disturb the master for the purpose of letting them in. In one of these instances the air was liable to be especially foul by the absence of a sulphur flue, and in another by the privy being within the bakehouse.

"8. In two instances the sleeping place for the workmen was a few inches below the level of the bakehouse; in one of these the sleeping place was without any means of ventilation.

"9. In five instances the men slept in the loft over the bakehouse and furnace—a very hot place. In one of these the man informed Mr. Godbold that the boards were so hot at times that he could hardly stand upon them, and that the place in consequence of the heat was swarming with bugs. One of these sleeping lofts was the medium through which alone the hot air and steam from the bakehouse could escape.

"10. In two instances sleeping rooms on a level with the bakehouse were not ventilated by windows opening to the extent required by the statute.

"11. Mr. Godbold in his night visits did not discover any youths under eighteen years of age (apparently) at work.

"12. There are fifteen establishments where it is stated that the business is conducted without night-work."

Without such a detailed tabular statement it would not be easy to form an idea of the filth and abominations which pollute the atmosphere in which our bread is made. The absorbent surface of the freshly kneaded dough is extremely well-adapted for becoming speedily saturated with the vaporous and gaseous abominations floating around it; and such bread can neither be cleanly nor wholesome.—*Lancet*, Dec. 17th, 1864.

Obituary Record.—Died, Dec. 8th, 1864, of double pneumonia with pericarditis, after an illness of five days, William Senhouse Kirkes, M.D., Physician to St. Bartholomew's Hospital, aged 41 years. Dr. K. was well known in this country by his excellent hand-book of Physiology.

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Pl. 59 and 60. Strictures and Obstructions of the Urethra—False Passages—Enlargements and Deformities of the Prostate.
Pl. 61 and 62. Deformities of the Prostate—Distortions and Obstructions of the Prostatic Urethra.
Pl. 63 and 64. Deformities of the Bladder—Sounding for Stone—Catheterism—Puncturing the Bladder above the Pubes.
Pl. 65 and 66. Popliteal Space and Posterior Crural Region.
Pl. 67 and 68. Anterior Crural Region—Ankle—Foot.

The universal commendation with which this work has been favored by the medical press in England and the United States, and the very large sale which it has had, sufficiently show that the author has satisfactorily carried out the very complete plan of the volume, and that it supplies a want long felt by the student and practitioner.

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